

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-224138

(43)Date of publication of application : 12.08.1994

(51)Int.Cl. H01L 21/205
B01J 19/00
C23C 16/44
C30B 25/02

(21)Application number : 05-184091

(71)Applicant : TEXAS INSTR INC <TI>

(22)Date of filing : 26.07.1993

(72)Inventor : WALLACE ROBERT M
GNADE BRUCE E

(30)Priority

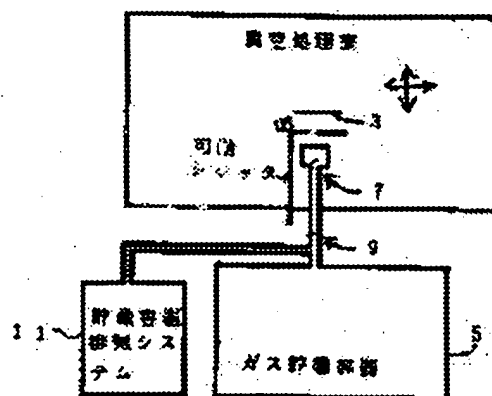
Priority number : 92 919685 Priority date : 27.07.1992 Priority country : US

(54) ATOMIC-LAYER EPITAXY DEVICE

(57)Abstract:

PURPOSE: To highly accurately expose a substrate to gaseous precursor molecules and to form an epitaxial or amorphous adsorption monoatomic layer at an extremely low atmospheric temperature by using an oriented outflow molecular line of a precursor gas and a proper gas storage container.

CONSTITUTION: A storage container evacuation system 11 is used for changing gas in a treatment chamber 1. In this case, a gas storage container 5 is closed and all the residual gases in a orifice 9 for limiting the conductance and a capillary array adder 7 is evacuated into the system 11. Then one or plural precursors for forming another monatomic layer or single molecular layer are repeatedly used, together with the same or different precursor. Thus a device to be produced is constructed. Either an automatic or a manual valve can be used for the valve which controls the gas flow rate from a tank in the container 5.



LEGAL STATUS

[Date of request for examination] 26.07.2000

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]